Please answer all parts. Please show your work as much as possible.

Part I (20 points). Short Answer. Please give a full answer. If you need to indicate whether the answer is true or false, please explain your answer. You must give an explanation to get full credit for the answer (1 point for correct answer; 1 point for the explanation).

1. (Ricardian framework). Assume that country X produces two goods, cloth and steel. Country X has an absolute advantage in the production of both goods, but only has a comparative advantage in producing steel. Assume that the free trade price is in between the two country autarky prices. With trade, consumers will have to pay a higher price for steel, but wages in country X will rise when it opens up to trade. True or False?

2. The Theorem of Factor Price Equalization (FPE) states that with trade, returns to factors should equalize throughout the world. This implies that wages should become equal across all countries. One important assumption underlying this theorem is differences in technology across countries. True or False?

3. Home and Foreign can produce cheese, wine, and tools with the following unit labor requirements:

<table>
<thead>
<tr>
<th></th>
<th>Home</th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheese</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Wine</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Tools</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

In world trade equilibrium, wages are the same in home and foreign, \( w = w^* \). What good(s) will Home Produce? What good(s) will Foreign produce?
4. Answer and Explain. If \( P_c/P_f \) were to increase in the international marketplace, then:

A. All countries would be better off
B. The terms of trade of cloth exporters improve
C. The terms of trade of food exporters improve
D. The terms of trade of all countries improve
E. None of the above

5. If the USA is abundant in skilled labor relative to unskilled labor, then the Stolper-Samuelson theorem suggests that when the USA increases its trade with China, wage inequality in the USA should rise. True or False? What has actually happened to wage inequality in the USA? Is this consistent with the theory? What should happen to wage inequality in China?

6. The incidence of poverty in the world is falling. Trade shares are rising. Therefore globalization has led to a reduction in the incidence of poverty. True or False?
7. True or False? The gravity model states that trade between two countries will increase if the size of either country’s economy increases and the distance between the two countries is bigger.

8. True or false? In the Ricardian framework, everyone always gains from trade (assuming that the free trade price differs from the autarky price) but in the Specific Sector Model, the factor used to produce the good which is imported always loses.

9. Suppose that the United States and Canada have the factor endowments in the table below. Suppose further that the production requirements for a unit of steel is two machines and eight workers, and the requirements for a unit of bread is one machine and eight workers.

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>40 machines</td>
<td>10 machines</td>
</tr>
<tr>
<td>Labor</td>
<td>200 workers</td>
<td>60 workers</td>
</tr>
</tbody>
</table>

(a) Which good, bread or steel, is relatively capital intensive? Labor Intensive? Explain how you know.
(b) Which country would export bread? Why?

10. Studies suggest that the poor in exporting sectors tend to benefit from globalization (ie poverty falls when exports rise) and that the poor in import-competing sectors are hurt from globalization. Is this consistent with a Heckscher-Ohlin view of the world or a specific sector view? Why or why not?
Part II. The Ricardian Model of Trade  (All parts worth 5 points except (d), which is worth 1 point, and (f),
which is worth 4 points).

Malaysia has 300 units of labor while there are 500 units of labor in Indonesia. When they
produce, the countries have the following unit labor requirements:

<table>
<thead>
<tr>
<th></th>
<th>Malaysia</th>
<th>Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameras</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Rugs</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

(a) What is the relative price of rugs to cameras in Malaysia if there is no trade?

(b) Suppose that Malaysia and Indonesia are completely specialized when they trade. Which product will
Malaysia produce?

(c) Draw the production possibility frontier for Malaysia. If Malaysia only produces the good in which it
has a comparative advantage, where will its production point be on the production possibility frontier? If
the post-trade world price will be at 1, can you show that there are gains from trade? (HINT: the point of
production and consumption is not the same).

(d) Does Indonesia benefit from trade when the world price for rugs to cameras is 1? Explain.
(e) Draw a world supply schedule which shows rug production relative to cameras. Label all axes, curves, intercepts, and kink points.

(f) Add a relative demand schedule to your diagram that implies that Malaysia is incompletely specialized.
Part III. The Specific Factor Model

According to an article that appeared in the New York Times this week, China has encouraged the growth of tea exports as one way to help the rural poor and decrease inequality. We can describe what is happening in China using the Specific Factor Model. Assume that there are two goods, tea and computers. Assume that there are two specific factors in China, unskilled labor (which is specific to tea production) and skilled labor (which is specific to computer production). Assume that capital is the mobile factor.

III.A (15 Points) Show what happens to skilled and unskilled nominal as well as real wages if the price of tea rises. Assume that there has been no change in the price of computers.

III.B (10 Points) If the price of tea rises, show what happens to the real return to capital in China. If you are told that owners of capital use computers but refuse to drink tea, how does this affect your answer?
Part IV. The Standard Trade Model.

(15 points) In this week’s New York Times, an article appeared which indicates that China is now a net exporter of tea. Using the standard trade model, draw a production possibility frontier with tea products on the vertical axis and all other goods (labeled AOG for all other goods) on the horizontal axis. Draw a line tangent to the production possibility frontier and show the slope (you may label the price of tea as \(P_t\) and the price of All Other Goods as \(P_{AOG}\)). Choose a production point and a consumption point which shows that China is a net exporter of tea. Label your graph to show clearly how much tea China exports and how much of All Other Goods it imports.

(15 points) India is very concerned about the increase in China’s tea exports. Using a standard trade model for India, show India as a net exporter of tea, labeling its exports and imports. Also show the initial relative price line. Then show what will happen to India if (due to the surge in Chinese exports of tea) it experiences a decline in its terms of trade for its export (tea) versus all other goods (AOG). Is India made worse off by the increase in tea exports out of China? Does this mean that India does (or does not) gain from trade?